

```

config vec4 { VL      = 4,
              IW      = 2,
              OC      = { MEMORY, MULT, ALU, USER },
              ITS     = { { MEMORY, MULT },
                          { MEMORY, ALU },
                          { MEMORY, USER },
                          { ALU, MULT },
                          { ALU, ALU },
                          { ALU, USER },
              OW [MEMORY] = 1, (FULL),
              OW [ALU]   = 1, (FULL),
              OW [MULT]  = 0.5 (Half),
              OW [USER]  = 0.5 (Half),
              COS        = { }
            }
    
```

FIG. 1

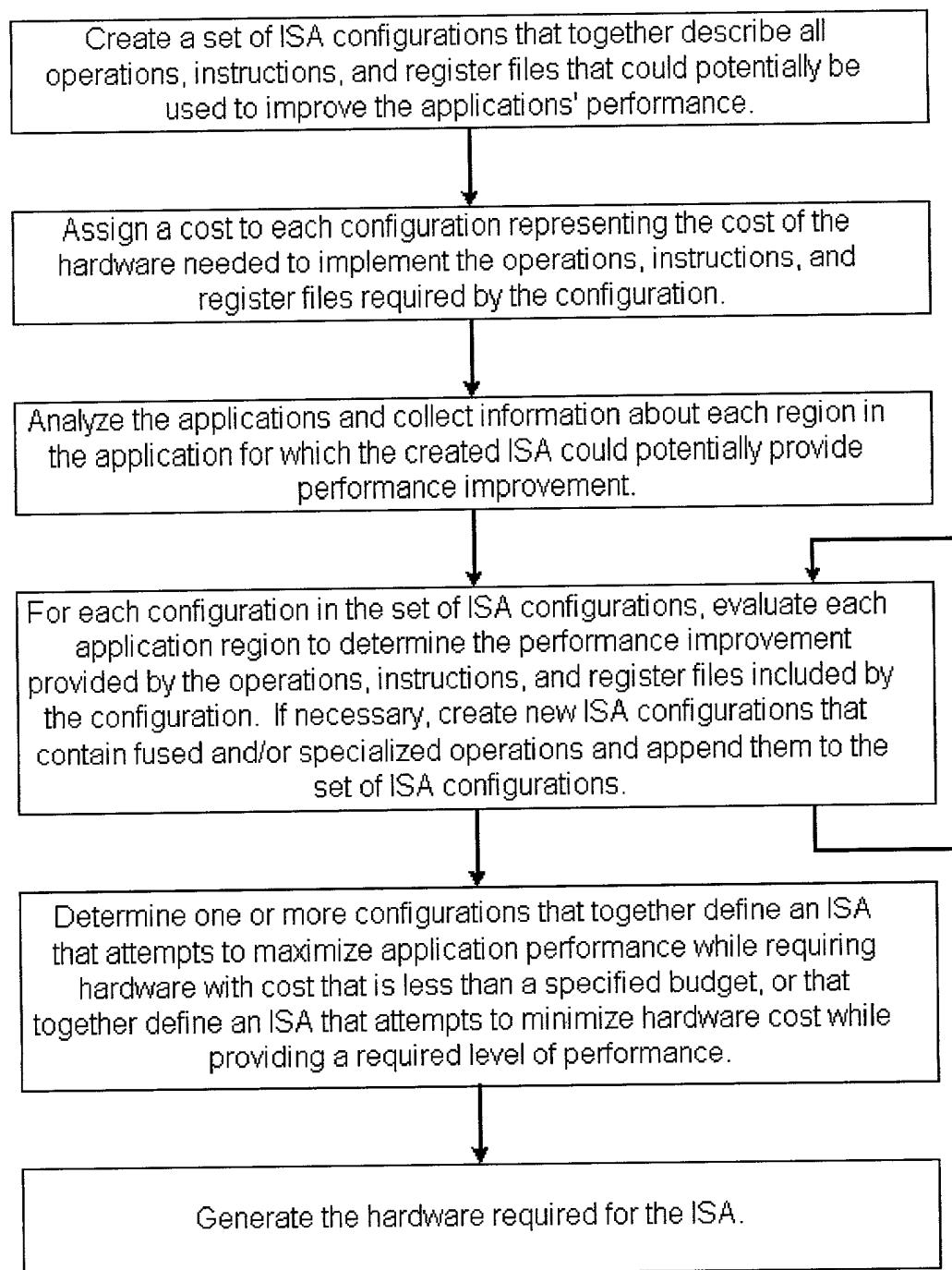


FIG. 2

```

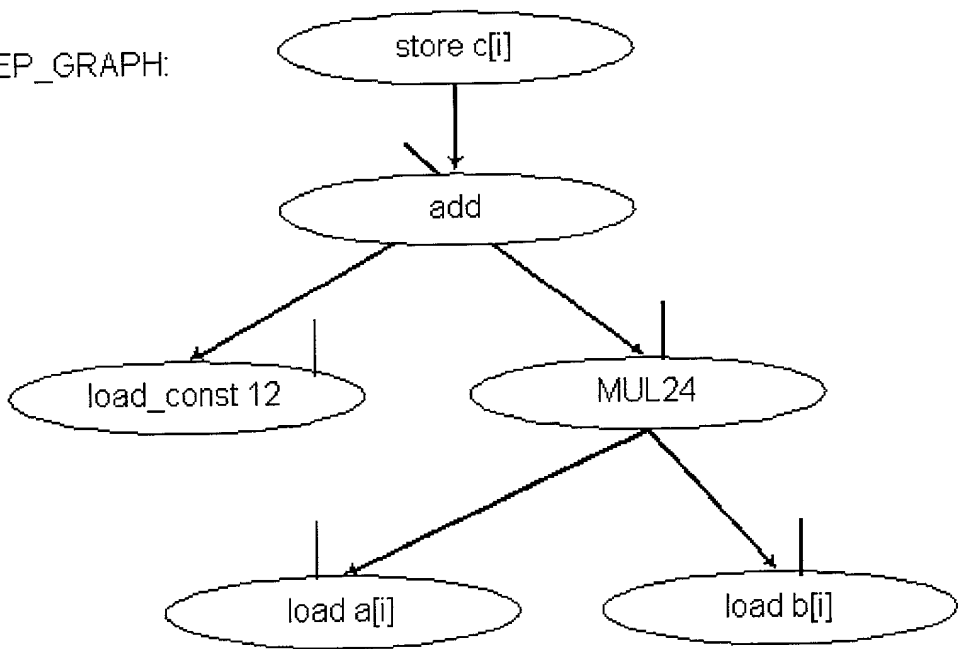
config SCALAR { VL      = 1,
                 IW      = 1,
                 OC      = { MEMORY, MULT, ALU, USER },
                 ITS     = { { MEMORY },
                             { MULT },
                             { ALU, },
                             { USER } },
                 OW [MEMORY] = 1 (FULL),
                 OW [ALU]   = 1 (FULL),
                 OW [MULT]  = 1 (FULL),
                 OW [MEMORY] = 1 (FULL),
                 COS       = { }
               }
  
```

FIG. 3

```
int      c[100];  
int124   a[100], b[100];  
for (i = 0; i < 100, i++)  
    c[i] = 12 + MUL24 (a[i], b[i]);
```

FIG. 4A

DEP_GRAPH:



EXEC_CNT: 100
VL: {1,2,4}

FIG. 4B

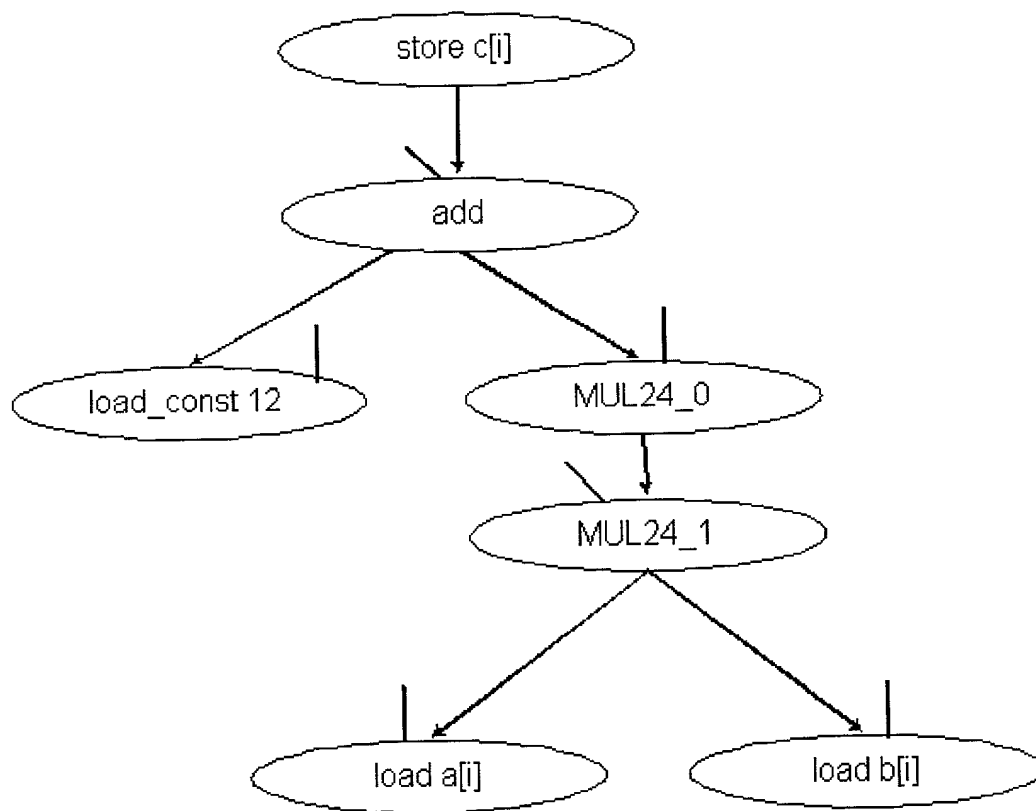


FIG. 5

```
load    a[i],    load_const    12;  
load    b[i],    MUL24_0;  
                        MUL24_1;  
store   c[i],    add;
```

FIG. 6

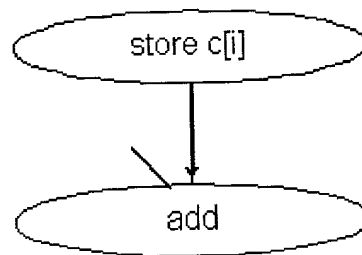


FIG. 7

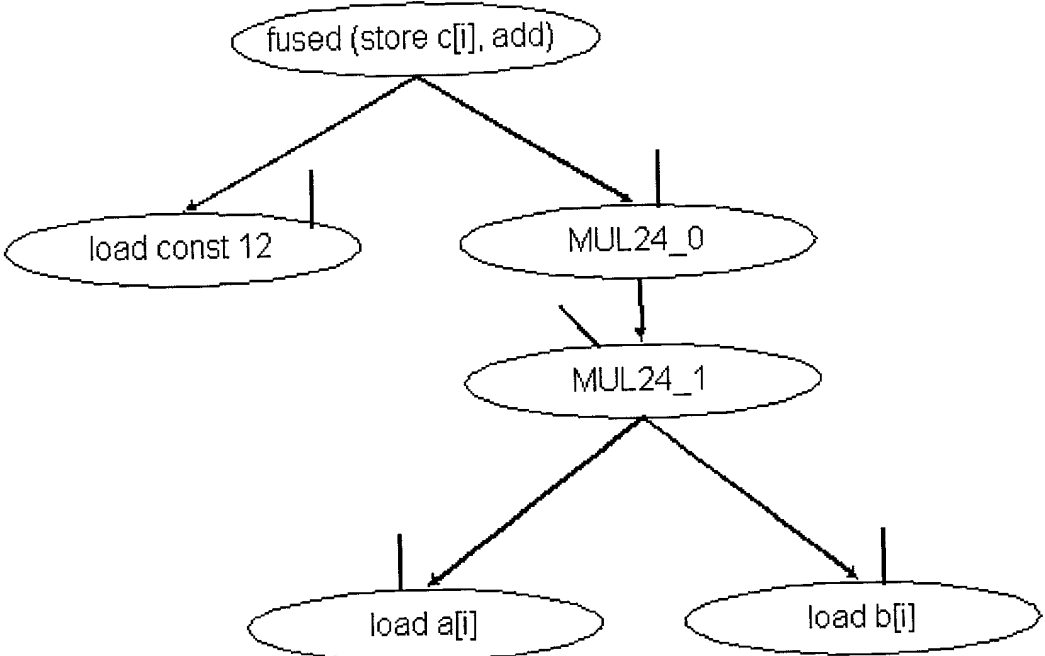


FIG. 8A

```

load    a[i],      load_const  12;
load    b[i],      MUL24_0;
fused (store c[i] / add),  MUL24_1;

```

FIG.8B

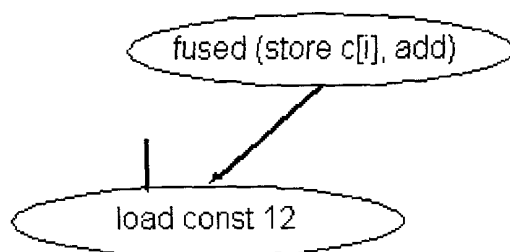


FIG. 9

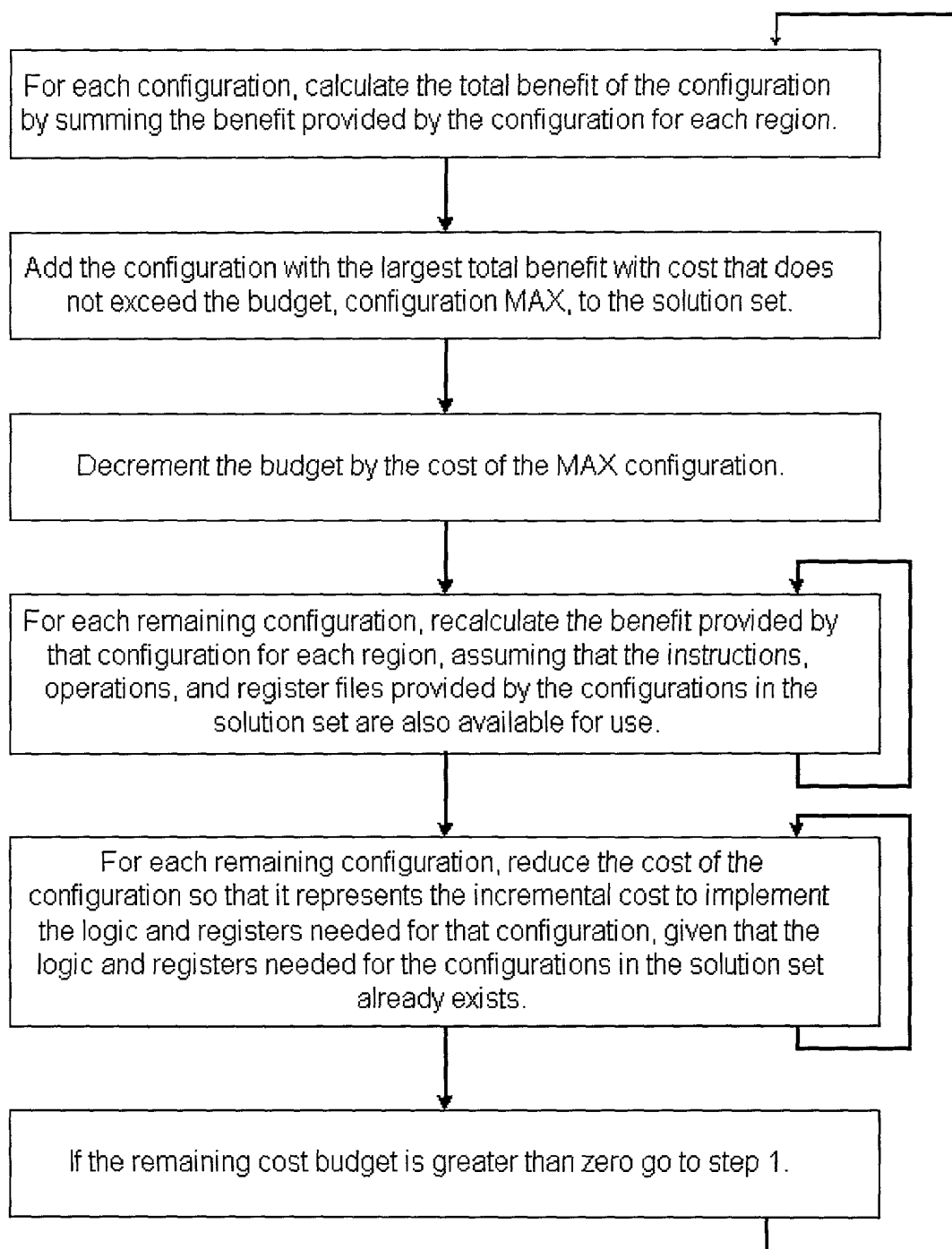


FIG. 10

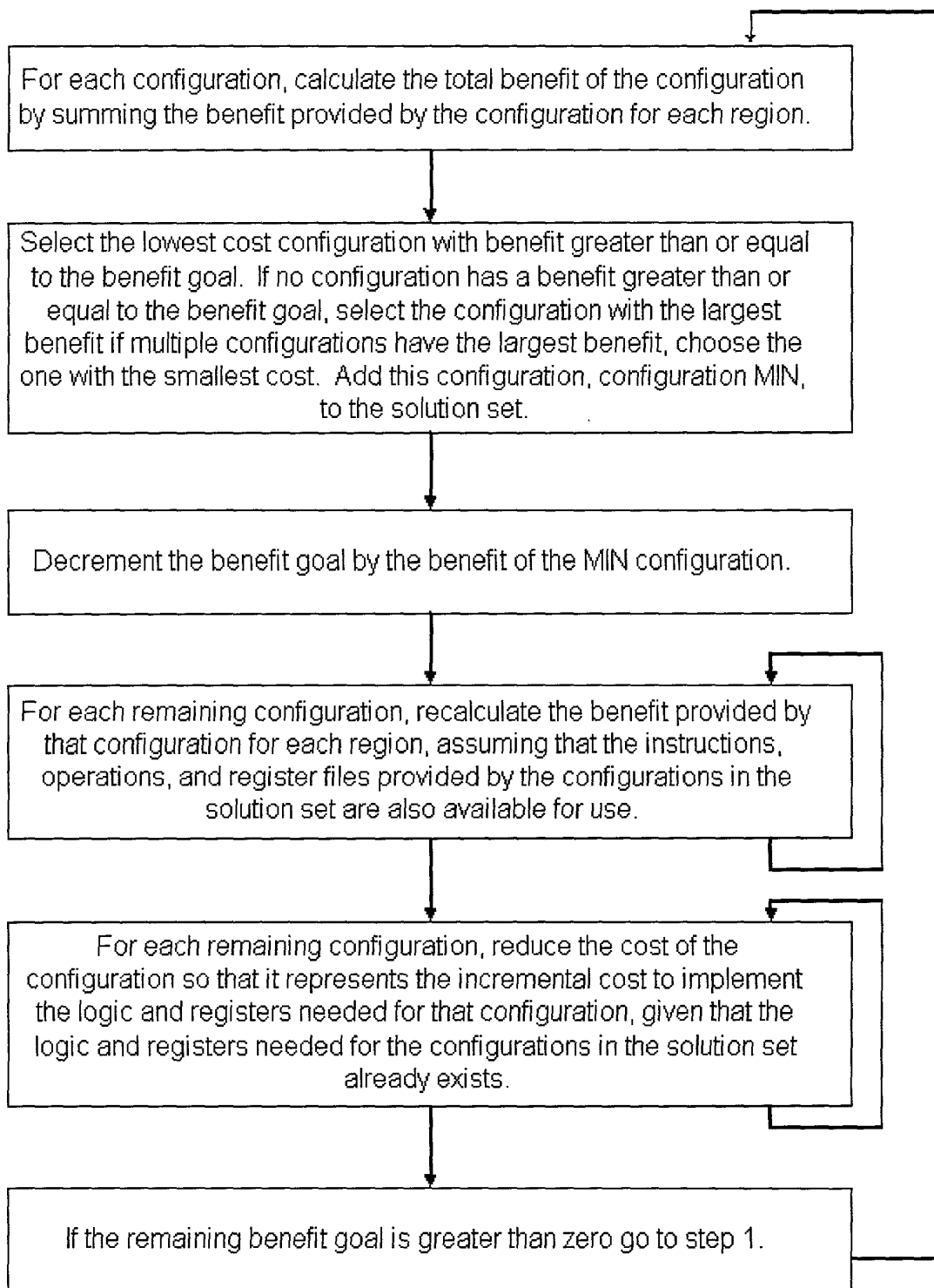


FIG. 11